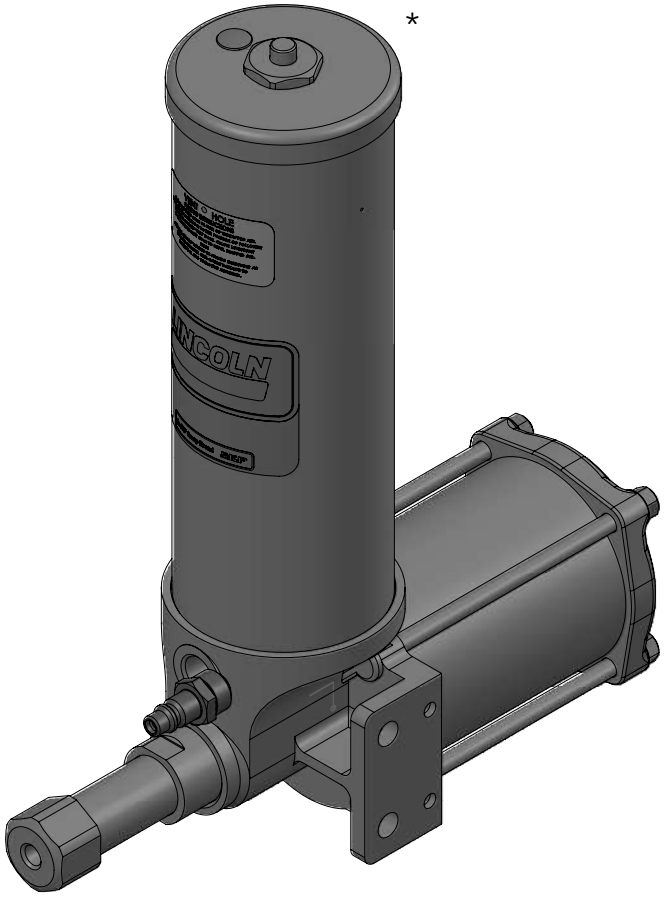
Air operated grease pump

Model 82653, single stroke air return, series “K”



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Version	**2**

* Indicates change.

Contents

* Indicates change.

SKF	Declaration of Incorporation*	DOCUMENT NUMBER 403570.DoI

Manufacturer name/address:
Lincoln Industrial Corporation
5148 N. Hanley Road
St. Louis, MO 63134 U.S.A.
TEL: +1 (314) 679-4200 FAX: +1 (314) 679-4367

Authorized to compile the technical file:
SKF Lubrication Systems Germany GmbH
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69190 Walldorf, Germany
TEL: +49 (0) 6227-330

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DoI

This Declaration of Incorporation is issued under sole responsibility of the manufacturer. Lincoln Industrial Corporation hereby declares that the partly completed machinery stated below:

Name: RAM pumps
Model number(s): 82653
Description: Air operated pumps
Year of CE: 2022

in its intended use, is in conformity with the relevant union harmonization legislation:

Machinery Directive 2006/42/EC

and conforms to the following harmonized standards:

EN ISO 4413: 2010
Hydraulic fluid power - General rules and safety requirements for systems and their components

EN ISO 12100: 2010
Safety of machinery. General principles for design. Risk assessment and risk reduction

EN ISO 4414:2010
Pneumatic fluid power. General rules and safety requirements for systems and their components

EN ISO 809:1998+A1:2009
Pumps and pump units for liquids - Common safety requirements

EN 349:1993+A:2008
Safety of machinery – Minimum gaps to avoid crushing of parts of the body

The following EHSR (Essential Health and Safety Requirements) have been applied:

1.1.2a - 1.1.2b - 1.1.2c - 1.1.3 - 1.1.5 - 1.2.5 - 1.3.2 - 1.3.3 - 1.3.5 - 1.3.7 - 1.3.8 - 1.5.3 - 1.7 - 1.7.1 - 1.7.1.1 - 1.7.3 - 1.7.4

The manufacturer maintains a technical construction file containing test reports and product documentation:

Technical file summary sheet number:
RA402816-00

The partly completed machinery shown above should not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the directive, where appropriate.

I, the undersigned of Lincoln Industrial Corporation, do hereby declare that the that the partly completed machinery described above above, in its intended use, conforms to the requirements of the above EC Directive(s).

Robert Collins
Technical Compliance Manager
St. Louis, MO, U.S.A.
2022/04/05

* Indicates change.

SKF	U.K. Declaration of Incorporation*	DOCUMENT NUMBER UK403570CA

Manufacturer name/address:
Lincoln Industrial Corporation
5148 N. Hanley Road
St. Louis, MO 63134 U.S.A.
TEL: +1 (314) 679-4200 FAX: +1 (314) 679-4367

Authorized to compile the technical file:
SKF (U.K.) Limited
2 Canada Close
Banbury, Oxfordshire, OX16 2RT, GBR

EMAIL: robert.collins@skf.com WEBSITE: www.skf.com

UK CA

This U.K. Declaration of Incorporation is issued under sole responsibility of the manufacturer. Lincoln Industrial Corporation hereby declares that the partly completed machinery stated below:

Name: RAM pumps
Model number(s): 82653
Description: Air operated pumps
Year of CE: 2022

in its intended use, is in conformity with the relevant union harmonization legislation:

Supply of Machinery (Safety) Regulations 2008 (S.I. 2008:1597)

along with the following Directive(s) that were also applied with the above legislation:

EN ISO 4413: 2010
Hydraulic fluid power - General rules and safety requirements for systems and their components

EN ISO 12100: 2010
Safety of machinery. General principles for design. Risk assessment and risk reduction

EN ISO 4414:2010
Pneumatic fluid power. General rules and safety requirements for systems and their components

EN ISO 809:1998+A1:2009
Pumps and pump units for liquids - Common safety requirements

EN 349:1993+A:2008
Safety of machinery – Minimum gaps to avoid crushing of parts of the body

The following EHSR (Essential Health and Safety Requirements) have been applied:

1.1.2a - 1.1.2b - 1.1.2c - 1.1.3 - 1.1.5 - 1.2.5 - 1.3.2 - 1.3.3 - 1.3.5 - 1.3.7 - 1.3.8 - 1.5.3 - 1.7 - 1.7.1 - 1.7.1.1 - 1.7.3 - 1.7.4

The manufacturer maintains a technical construction file containing test reports and product documentation:

Technical file summary sheet number:
RA402816-00

The partly completed machinery shown above should not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the directive, where appropriate.

I, the undersigned of Lincoln Industrial Corporation, hereby declare that the that the partly completed machinery described above above, in its intended use, conforms with the Essential Health and Safety Requirements of U.K. legislation Supply of Machinery (Safety) Regulations 2008 No. 1597 Annex I, Declaration of Incorporation by the time of placing it on the market.

Robert Collins
Technical Compliance Manager
St. Louis, MO, U.S.A.
2022/04/05

* Indicates change.

Safety*

Read and carefully observe these installation instructions before installing/operating/troubleshooting the assembly. The assembly must be installed, maintained and repaired exclusively by persons familiar with the instructions.

Always disconnect power source (electricity, air or hydraulic) from the pump when it is not being used.

This equipment generates high pressure. Extreme caution should be used when operating this equipment as material leaks from loose or ruptured components can inject fluid through the skin and into the body. If any fluid appears to penetrate the skin, seek attention from a doctor immediately. Do not treat injury as a simple cut. Tell attending doctor exactly what type of fluid was injected.

Any other use not in accordance with instructions will result in loss of claim for warranty or liability.

- Do not misuse, over-pressurize, modify parts, use incompatible chemicals, fluids, or use worn and/or damaged parts.
- Do not exceed the stated maximum working pressure of the equipment or of the lowest rated component in your system.
- Always read and follow the manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.
- Failure to comply may result in personal injury and/or damage to equipment.

Explanation of signal words for safety

NOTE

Emphasizes useful hints and recommendations as well as information to prevent property damage and ensure efficient trouble-free operation.

⚠ CAUTION

Indicates a dangerous situation that can lead to light personal injury if precautionary measures are ignored.

⚠ WARNING

Indicates a dangerous situation that could lead to death or serious injury if precautionary measures are ignored.

⚠ DANGER

Indicates a dangerous situation that will lead to death or serious injury if precautionary measures are ignored.

⚠ WARNING

Do not operate equipment without reading and fully understanding safety warnings and instructions.

Failure to follow warnings and instructions may result in serious injury.

NOTE

Do not operate equipment without wearing personal protective gear.

Wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

⚠ WARNING

Do not allow any body part to be trapped by equipment. Body parts can be crushed by subassemblies during operation.

Failure to comply may result in death or serious physical injury.

⚠ WARNING

Do not allow fluid to leak onto floor when operating equipment. If spill occurs, clean any fluid on floor before continuing operation.

Failure to comply may result in death or serious personal injury.

⚠ WARNING

Do not use this equipment to supply, transport, or store hazardous substances and mixtures in accordance with annex I part 2-5 of the CLP regulation (EG 1272/2008) or HCS 29 CFR 1910.1200 marked with GHS01, GHS06 and GHS08 hazard pictograms shown:

* Indicates change.

Specifications

Ratio	Lubricant output	Reservoir capacity	Air inlet	Lubricant outet	Lubricant operating pressure Type of system	Minimim	Maximum	Recommended
31:1	1.4 in^3 [1)]	4 lbs (120 in^3)	1/4 in NPT (f)	1/4 in NPT (f)	SL-1	1 850 psi with 60 psi air	3 500 psi with 113 psi air	2 500 with 82 psi air
31:1	1.4 in^3 [1)]	4 lbs (120 in^3)	1/4 in NPT (f)	1/4 in NPT (f)	SL-32	1 200 psi with 40 psi air	3 500 psi with 113 psi air	1 500 psi with 50 psi air.
31:1	1.4 in^3 [1)]	4 lbs (120 in^3)	1/4 in NPT (f)	1/4 in NPT (f)	SL-33	1 200 psi with 40 psi air	3 500 psi with 113 psi air	1 500 psi with 50 psi air.

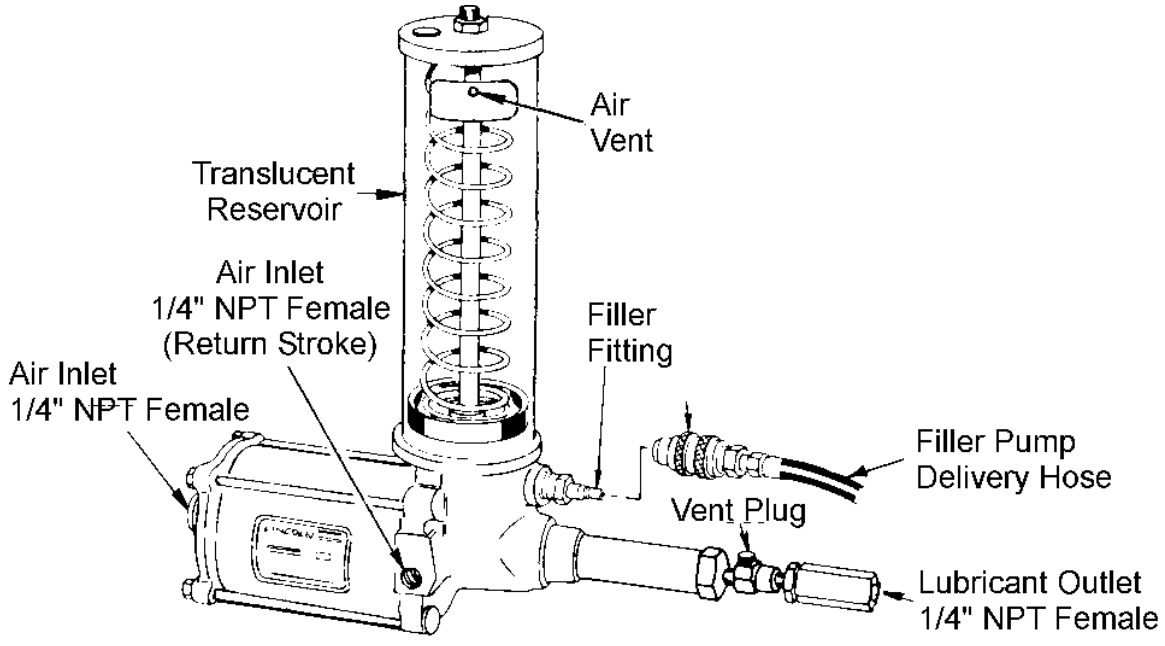
[1)] Based on Lubricants that are free of entrapped air. Lubricants that are aerated will reduce output of pump.

The 82653 pump is an air-operated, single-stroke pump requiring air for both forward and return stroke and discharges 1.4 in^3 of lubricant into the circuit for each pump stroke (lubrication cycle). Dispenses grease up through NLGI No. 1.
The total quantity of lubricant needed for the lubrication cycle of the system must not exceed the amount of lubricant discharged per pump stroke.

To fill reservoir

Use a manual filler pump to fill reservoir through the filler fitting in the pump body. Attach coupler on delivery hose to filler fitting. Stroke filler pump handle until lubricant weepage is noted at air vent hole in the reservoir (lower portion of follower must rise beyond air vent hole to expel entrapped air from lubricant).

NOTE
When filling the reservoir, caution should be used as extreme pressure can cause damage to reservoir and follower assembly.



To prime system

Supply lines

After pump reservoir has been filled with recommended lubricant, turn vent plug counter-clockwise one complete turn and operate pump until lubricant flows freely from opening in vent plug to expel air pockets trapped between the pump and the supply line connection. Tighten vent plug. Remove all plugs in dead ends of the injector manifolds and supply lines. Operate pump until lubricant flows from any plug opening. Close opening with plug. Continue operating pump until lubricant flows from another plug opening. Repeat this procedure until all supply lines are primed and plug openings closed.

Feeder lines

Fill each feed line with lubricant before connecting lines to outlet of injectors and bearings. This will prevent having to cycle each injector for every inch of feed line between injector and bearing.

Injectors

Check each injector for proper operation. Injector stem moves when injector discharges lubricant to bearing. This may require cycling system several times.
After checking injectors for operation, adjust injectors for the volume required for each bearing.

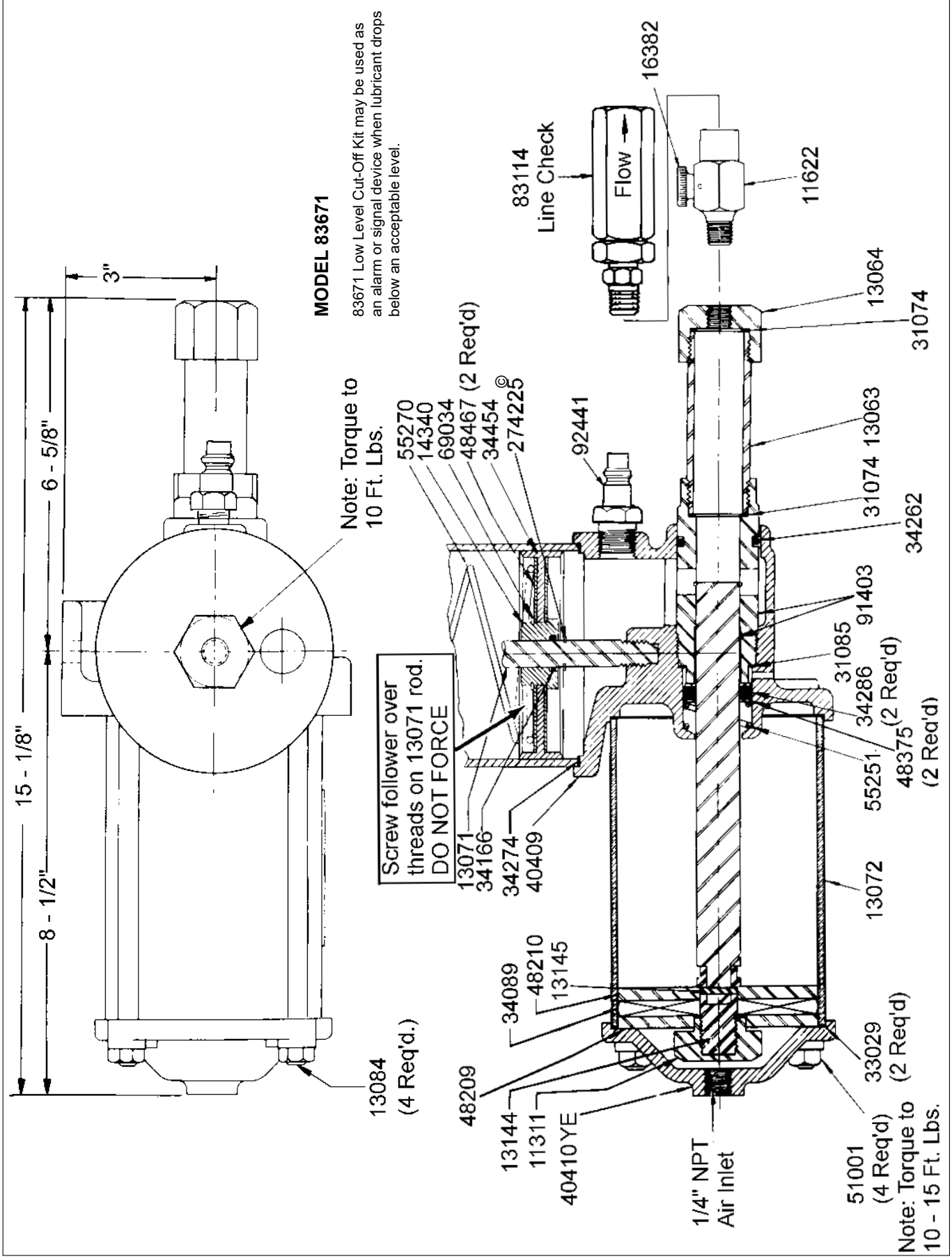

MODEL 83671
83671 Low Level Cut-Off Kit may be used as an alarm or signal device when lubricant drops below an acceptable level.
3"
6 - 5/8"
15 - 1/8"
8 - 1/2"
Note: Torque to 10 Ft. Lbs.
13084 (4 Req'd.)
83114 Line Check
Flow
16382
11622
13064
31074
31074 13063
34262
91403
31085
34286
48375 (2 Req'd)
55251
(2 Req'd)
55270
14340
69034
48467 (2 Req'd)
34454 ©
274225
92441
Screw follower over threads on 13071 rod. DO NOT FORCE
13071
34166
34274
40409
13072
34089
48210
13145
48209
13144
11311
40410YE
1/4" NPT Air Inlet
33029 (2 Req'd)
51001 (4 Req'd) Note: Torque to 10 - 15 Ft. Lbs.

Fig. 2

Model 82653 air operated single stroke grease pump

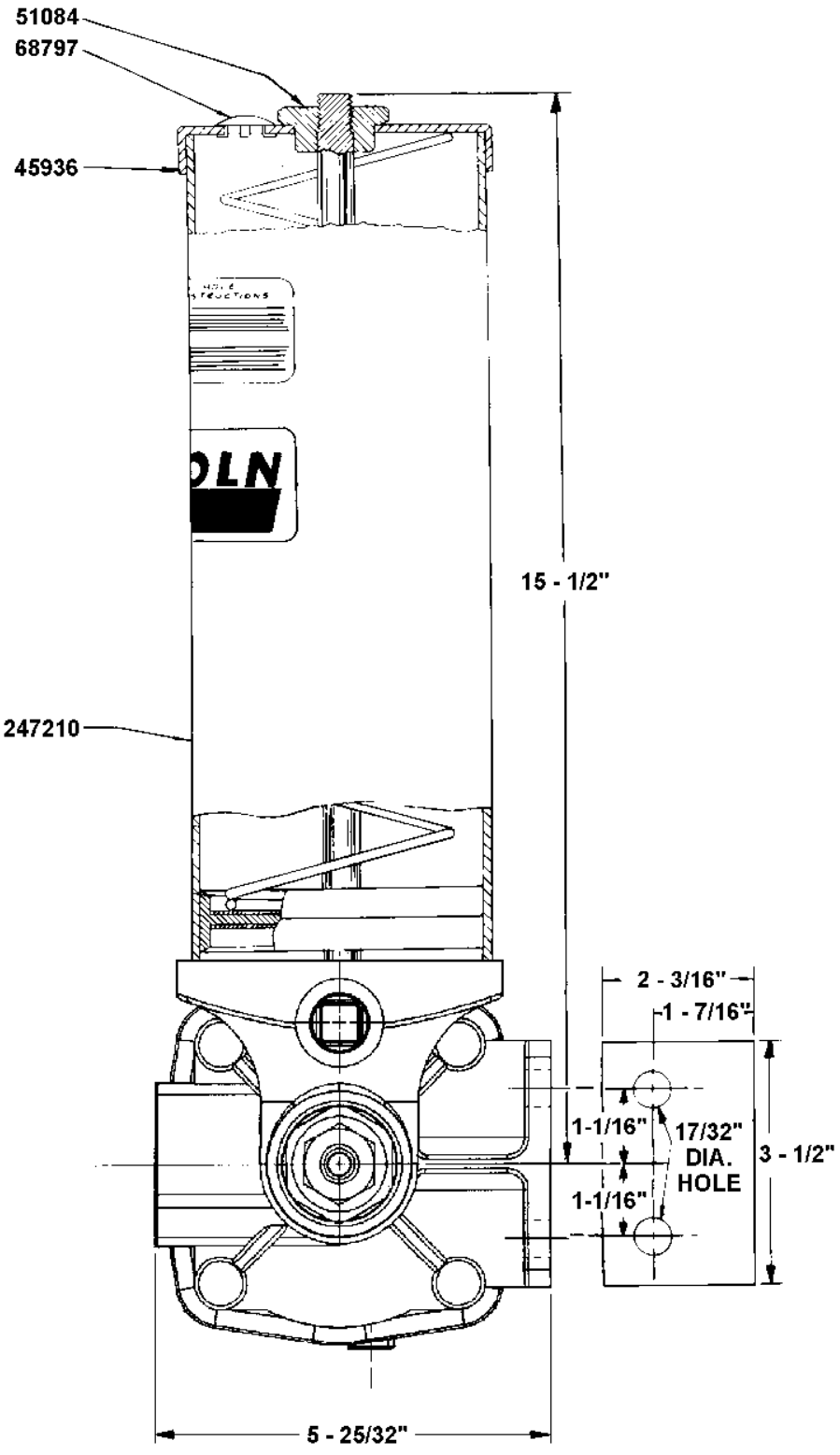
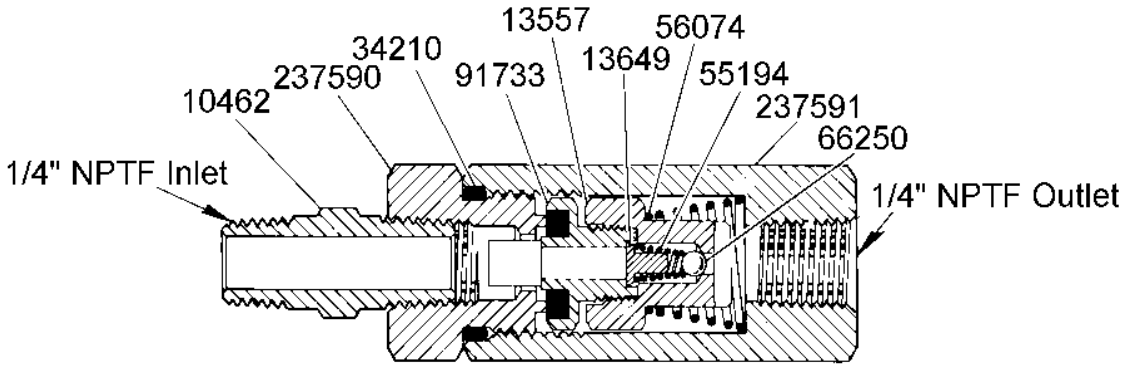


Fig. 3

83114 line check



What to do if

Pump loses prime - Check lubricant supply.

System fails to cycle - and calculated system planning has been followed - lubricant is leaking by packing of 91733 check or the 66250 check. Failure of injectors to cycle can also be caused by a leak in supply lines. Examine supply lines and connections.

Pump fails to operate - Check air supply.

To clean line check 83114

Remove 91733 check and examine packing for presence of foreign particles. If packing is damaged, replace 91733 check.

Remove 66250 ball check, 55194 spring and 13649 ball stop from 13557 check retainer. Examine for presence of foreign particles. Clean thoroughly.

Service parts

Part	Description	Quantity	Part	Description	Quantity	Part	Description	Quantity
10462	Nipple	1	34166 [1]	O-ring (Nitrile)	1	56074	Spring	1
11311	Piston nut	1	34210 [1]	O-ring (Nitrile)	1	66250 [1]	Steel ball	1
11622	Outlet body	1	34262 [1]	O-ring (Nitrile)	1	68797	Plug button	1
13063	Pump tube	1	34274 [1]	Gasket	1	69034	Retaining ring	1
13064	Outlet	1	34286 [1]	Packing (Nitrile)	2	83114	Line check assembly	1
13071	Tie rod	1	34454 [1]	Follower Packing (Nitrile)	1	91403	Bushing and plunger	1
13072	Air cylinder	1	40409	Body casting	1	91733 [1]	Check	1
13084	Tie rod	4	40410YE	Cylinder cap	1	92441	Filler fitting	1
13144	Packing stud	1	45936	Cover cap	1	237590	Check seat	1
13145	Pin	1	48209	Washer	1	237591	Check body	1
13557	Check retainer	1	48210	Washer	1	247210	Reservoir (Acrylic)	1
13649 [1]	Ball stop	1	48375	Washer	2	274225	Retaining Ring	1
14340	Bushing	1	48487	Washer	2			
16382	Vent plug	1	51001	Nut	4			
31074 [1]	Gasket	2	51084	Nut	1			
31085	Gasket	1	55194 [1]	Spring	1			
33029 [1]	Gasket	2	55251	Spring	1			
34089 [1]	Packing (Nitrile)	1	55270	Spring	1			

[1] Included in 252715 soft parts kit.

Warranty

The instructions do not contain any information on the warranty.
This can be found in the General Conditions of Sales, available at:
www.lincolnindustrial.com/technicalservice or www.skf.com/lubrication.

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